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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,750	01/15/2004	Shyam S. Bayya	N.C. 84,936	6396

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NAVAL RESEARCH LABORATORY  
ASSOCIATE COUNSEL (PATENTS)  
CODE 1008.2  
4555 OVERLOOK AVENUE, S.W.  
WASHINGTON, DC 20375-5320

EXAMINER

SAMPLE, DAVID R

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/758,750

Applicant(s)

BAYYA ET AL.

Examiner

David Sample

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20040206.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

“The glass material” in claim 20 lacks antecedent basis. (It appears that the claim is intended to be a dependent claim, however, the pendency was omitted.)

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Dejneka et al. (US 6,589,895).

Dejneka et al. discloses glass compositions that anticipate the glass recited in on one or more of claims 18-20. The following compositions anticipate one or more of claims 19-20:

- Samples CA, CB, CC and CD, Table II, col. 7;
- Samples DS, DT and DU, Table VI, col. 8;
- Samples ID, IF-IM, Table VI, col. 9;

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- Samples KX-LF, i.e., all of the compositions of Table VII, col. 10
- Samples HW-JM, i.e., all of the compositions of Table VIII, col's 9-10; and
- Samples OR, OS, and OT, Table IX, col. 11.

The reference fails to disclose that any hydroxyl groups are present in the glass compositions. Moreover, the reference discloses that the halogen compounds strip out the OH groups during melting. For these reasons, the claim 18 recitation regarding hydroxyl group concentration is assumed to be inherent to the reference. See MPEP 2112.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dejneka et al. (US 6,589,895) in view of Jewel et al. (US 5,486,495).

As noted above, Dejneka et al. discloses glass compositions that anticipate the glass recited in claims 18-20. These glasses also anticipate the compositional recitations of instant claims 3, 7, 9-12. Dejneka et al. provides little guidance on the method of making the glass.

However, as is well known in the art, glasses are formed by melting, quenching, annealing and cooling. For example, Jewell et al. discloses a method of making a BGG glass ceramic in which raw materials containing sources Ba, Ga and Ge are melted, quenched,

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annealed at a temperature above the glass transition temperature and cooled. See col. 4, lines 4-28.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the glass of Dejneka et al. in the manner taught by Jewel et al. because it is well known that glasses are formed in a manner akin to Jewel et al.

Claims 2-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dejneka et al. (US 6,589,895) in view of Jewel et al. (US 5,486,495) as applied to claim 1 above, and further in view of Higby et al. (5,305,414).

The combination of Dejneka et al. and Jewell et al. is silent on fining. Higby et al. discloses that a vacuum may be applied to BGG glass at its melting temperature to remove dissolved gasses. See the paragraph bridging col's 4 and 5 of Higby et al. This process is also called "fining."

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied a vacuum to the glass of Dejneka et al. during melting according to the process of Jewel et al. as suggested by Higby et al. because the resultant glass would have dissolved gasses removed.

The recitations of claims 3, 7, 9-12 can be found in Dejneka et al. in the anticipatory examples referred to above.

The recitations of instant claim 4 are glass properties and are presumed to be inherent to the glass of Dejneka et al. because the composition Dejneka et al. is identical to the presently claimed composition.

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The cooling rate and annealing recitations of claims 5 and 6 can be found in Higby et al. at col. 5, lines 5-24.

The recitations of claims 13-17 regarding forming a glass ceramic can be found in Jewel et al. at col. 4, line 29 to col. 5, line 25.


### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Sample whose telephone number is (571)272-1376. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (572)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David Sample  
Primary Examiner  
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